

## WE CLAIM:

1. An isolated strain of *V. cholerae* having the identifying characteristics of a strain selected from the group consisting of Matlab I, Matlab II and Matlab III.
2. The strain of claim 1 wherein the identifying characteristics are phenotypic traits.
3. The strain of claim 1 wherein the identifying characteristics are genotypic traits.
4. The strain of claim 1 wherein the identifying characteristics are those of Matlab I.
5. The strain of claim 1 wherein the identifying characteristics are those of Matlab II.
6. The strain of claim 1 wherein the identifying characteristics are those of Matlab III.
7. An isolated *Vibrio cholerae* strain having the characteristics of Matlab I, II or III, deposited at the National Collection of Type Cultures, London, UK, on August 27, 2002 designated as NC13269-01, NC13270-01 or NC13271-01.
8. A biologically pure culture comprising *V. cholerae* having the identifying characteristics of a strain selected from the group consisting of Matlab I, Matlab II and Matlab III.
9. A vaccine for protection against cholera comprising *V. cholerae* having the identifying characteristics of *V. cholerae* selected from the group consisting of Matlab I, Matlab II and Matlab III.
10. The vaccine of claim 9 that is a killed whole cell vaccine.
11. The vaccine of claim 10 wherein the cells are killed by heat.
12. The vaccine of claim 10 wherein the cells are killed by formalin.
13. The vaccine of claim 9 that is an oral vaccine.
14. The vaccine of claim 9 wherein said *V. cholerae* is selected from the group consisting of *V. cholerae* as set forth in claim 7.
15. The vaccine of claim 9, wherein the number of organisms per dose of said *V. cholerae* is between about  $10^4$  and  $10^{16}$ .
16. The vaccine according to claim 9, wherein said *V. cholerae* is combined with at least one additional strain of *V. cholerae*.
17. The vaccine according to claim 9, wherein said *V. cholerae* is combined with a cholera toxoid.
18. The vaccine of claim 9, which is a combination vaccine.

19. The vaccine of claim 18, which includes vaccine components effective against at least one organism selected from the group consisting of rotavirus and enterotoxigenic *E. coli*.
20. The vaccine of claim 9, which is effective in humans.
21. A pharmaceutical composition comprising: *V. cholerae* having the identifying characteristics of *V. cholerae* Matlab I, II, or III and a pharmaceutically acceptable carrier.
22. The pharmaceutical composition according to claim 21, wherein said pharmaceutically acceptable carrier comprises sterile saline buffered from about pH 7.1 to about pH 7.3.
23. The pharmaceutical composition according to claim 21, wherein said pharmaceutically acceptable carrier is suitable for oral administration.
24. The pharmaceutical composition according to claim 21, wherein said *V. cholerae* is combined with at least one other strain of *V. cholerae*.
25. The pharmaceutical composition according to claim 21, wherein said *V. cholerae* is combined with a cholera toxoid.
26. The pharmaceutical composition according to claim 21 comprising a *V. cholerae* strain of claim 7.
27. A method of protecting humans against cholera comprising:  
obtaining a *V. cholerae* culture comprising a *V. cholerae* having substantially all of the identifying characteristics of *V. cholerae* selected from the group consisting of Matlab I, Matlab II, and Matlab III; and  
administering an effective amount of said culture to a human.
28. The method for protecting humans against cholera according to claim 27, wherein said culture is administered orally.
29. The method for protecting humans against cholera according to claim 27, wherein said effective amount is contained in a single dose.
30. Use of the strain of one of claims 1-7 in a vaccine or immunological composition.
31. An isolated strain of *V. cholerae* according to one of claims 1-7 that has been attenuated.

32. The isolated strain of claim 31 characterized in that the CTX prophage DNA that carries genes for cholera toxin has been excised.
33. The isolated strain of claim 31 that does substantially does not secrete cholera toxin.
34. The isolated strain of one of claims 31-33 that is designated \_\_\_\_\_ and deposited at the National Collection of Type cultures, London UK, on \_\_\_\_\_.
35. The use of the strain of one of claims 31-34 in a cholera vaccine or immunological composition.
36. A cholera vaccine or immunological composition comprising at least one of the strains of claims 31-34.
37. The vaccine of claim 36 that is a killed whole cell vaccine.
38. The vaccine of claim 37 wherein the cells are killed by heat.
39. The vaccine of claim 37 wherein the cells are killed by formalin.
40. The vaccine of claim 36 that is an oral vaccine.
41. The vaccine of claim 36 wherein said *V. cholerae* is selected from the group consisting of *V. cholerae* as set forth in claim 7.
42. The vaccine of claim 36, wherein the number of organisms per dose of said *V. cholerae* is between about  $10^4$  and  $10^{16}$ .
43. The vaccine according to claim 36, wherein said *V. cholerae* is combined with at least one additional strain of *V. cholerae*.
44. The vaccine according to claim 36, wherein said *V. cholerae* is combined with a cholera toxoid.
45. The vaccine of claim 36, which is a combination vaccine.
46. The vaccine of claim 45, which includes vaccine components effective against at least one organism selected from the group consisting of rotovirus and enterotoxigenic *E. coli*.
47. The vaccine of claim 36, which is effective in humans.